



Training for Safehandling of Radiation and Radioisotopes and X-Ray Machines for Beginners in Tohoku University

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V. 5 Training for Safehandling of Radiation and Radioisotopes and X-Ray
Machines for Beginners in Tohoku University

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Training for safe handling of radiation and radioisotopes for beginners has been conducted twice a year from several years ago in Tohoku University. The contents of lectures and practices are almost the same as last year as shown in Table 1. In 1984 the training was performed for 393 persons. The number increased somewhat as compared with that of last year. The department to which they belong are given in Table 2.

Training for safehandling of X-ray machines and electron microscopes began from the end of 1983. The training is scheduled to be held twice a year at the same time as that for radiation and radioisotopes.

Only lectures are given and not practices. The contents of the lectures and the distributions of trainees are shown in Tables 3 and 4, respectively.

Table 1. Contents of lectures and practices for safehandling of radiation and radioisotopes in 1984.

| | | |
|-----------|---|-------------|
| Lectures | (Two days) | |
| | Radiation physics | 1.5 (hours) |
| | Radiation measurements | 1.5 |
| | Chemistry of radioisotopes | 1.5 |
| | Radiological protection ordinance | 1 |
| | Principles of radiation control | 1 |
| | Effects of radiation on man | 1.5 |
| | Safehandling of radioisotopes | 2 |
| | VTR for safe handling of radiation and radioisotopes | 2 |
| Practices | (One day) | |
| | Method of dilution of radioactive solution | |
| | Measurements of surface contamination and decontamination | |
| | Measurements of beta rays with G-M counters | |
| | Shielding of gamma rays and beta rays | |

Table 2. Distribution of trainees for safehandling of radiation and radioisotopes in 1984.

| Department | Staff | Student | Total |
|------------------------------|-------|---------|-------|
| Faculties | | | |
| Medicine | 47 | 72 | 119 |
| Dentistry | 2 | 13 | 15 |
| Pharmacy | 0 | 29 | 29 |
| Science | 3 | 77 | 80 |
| Engineering | 0 | 22 | 22 |
| Agriculture | 2 | 76 | 78 |
| College of General Education | 1 | 1 | 2 |
| Research Institutes | 9 | 38 | 47 |
| College of Medical Science | 1 | 0 | 1 |
| Total | 65 | 328 | 393 |

Table 3. Contents of lectures for safehandling of X-ray machines and electron microscopes in 1984.

| | |
|---|-------------|
| Safehandling of X-ray machines | 1.5 (hours) |
| Radiological protection ordinance | 1 |
| VTR for safehandling of radiation and radioisotopes | 2 |

Table 4. Distribution of trainees for safehandling
of X-ray machines and electron microscopes
in 1984.

| Department | Staff | Student | Total |
|---------------------|-------|---------|-------|
| Faculties | | | |
| Medicine | 11 | 7 | 18 |
| Dentistry | 2 | 1 | 3 |
| Science | 6 | 17 | 23 |
| Engineering | 11 | 58 | 69 |
| Research Institutes | 12 | 31 | 43 |
| Total | 42 | 114 | 156 |